

A NEW SPECIES OF WAX SCALE (*CEROPLASTES MURRAYI*) FROM NEW GUINEA.

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(Plate xiv.)

The members of the genus *Ceroplastes* are chiefly confined to the Tropics, and of the sixty-five species recorded in Mrs. Fernald's Catalogue of the Coccidæ of the World, fifty-three are described from the West Indies, Mexico, and Brazil; one is a native of Australia; and one, the "Indian Wax Scale," has become cosmopolitan, and, accidentally introduced into Australia, is a troublesome garden and orchard pest. These curious coccids have the power of producing a quantity of waxy secretion, forming a protective covering over the otherwise soft and naked female coccid. The secretion used by the cosmopolitan "Indian Wax Scale" (*Ceroplastes ceriferus*) is soft and watery; that of the "Red Wax Scale" (*Ceroplastes rubens*) forms a hard crystalline box over the coccid; while the "Wild Mango Wax Scale" (*Ceroplastes murrayi*) produces a solid mass of hard, white, wax-like secretion, forming a rounded dome over the resting gravid female coccid.

I am indebted to my valued friend, Mr. George H. Murray, for a fine series of these wonderful coccids, which, he states, are very common on the branches of the wild mango growing in the forests fringing the Kikori River, Delta Division, British New Guinea. My thanks are due to the Under-Secretary of Agriculture (Mr. Geo. Valder) for permission to use the beautiful plate drawn by Mr. E. H. Zeck, of the Artists' Branch, at the Government Printing Office.

CEROPLASTES MURRAYI, n.sp. (Plate xiv.).

First stage, ♀ test. Flattened star-shaped, slightly convex in centre, composed of crystalline plates, an oval one covering the

back of the coccid, with encircling plates fitting round it. From this centre there are usually seven, but sometimes eight, flattened plates, broad at the base, but each terminating in a fine point standing out like the rays of a star. Width across, 4 mm.

First stage, ♀. Light brown with yellowish tints; dorsum slightly convex; general form oval, with two well-defined arcuate impressions on each side between the cephalic, thoracic and abdominal regions; rounded at the apex, with a deep anal cleft. At the base of cephalic region are three stigmatic spines with a group of small tubercles; at the base of the thoracic are three large projecting spines, with smaller ones on either side, and a much larger stigmatic spine on the dorsum; on either side of the anal cleft, a long stout spine and two small ones. Antennae tapering, apparently composed of six joints, third longest. Legs long, femora thickened, tibia long, slender, tarsal claw pointed, digitules spatulate at tips. Length, 3 mm.

Second stage, ♀ test. Composed of white wax; the basal portion produced on the outer margin into seven, raised, rounded ribs, tapering to the extremities; a central rounded mass slightly constricted at the base, and depressed on the apex with a central key-hole-like pit directly over the back of the enclosed coccid. Height, 8 mm.

Test of adult ♀. A rounded bell-shaped mass of white wax. Height, $\frac{1}{2}$ inch; diameter, $\frac{3}{4}$ inch. The ribs or rays of the earlier stages, indicated by slight ridges down the sides, extending to short fingers on the basal margin.

Adult ♀. Chocolate-brown, probably dull red when alive; general form hemispherical, with the basal marginal fold fitting close against the bark; ventral surface contracted, forming a large cavity packed with eggs. The cephalic lobe densely chitinous. Derm with small, oval, translucent, glandular pores; anal process very prominent, apparently contracted at the extremity; stigmatic spines on the marginal fold projecting through the enveloping wax with filaments. Height, $\frac{1}{4}$ inch.

♂ unknown.